



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,989	09/29/2003	Paul D. Lucas	56231-434 (MKS-135)	2828

7590 02/24/2005

Toby H. Kusmer, Esq.  
McDERMOTT, WILL & EMERLY  
28 State Street  
Boston, MA 02109

EXAMINER


BASTIANELLI, JOHN

ART UNIT	PAPER NUMBER
----------	--------------

3751

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/673,989	Applicant(s) LUCAS ET AL. 	
	Examiner John Bastianelli	Art Unit 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) 22-40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,8,9,11-21 and 41-45 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/10/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election of Group I (claims 1-21 and 41-45) in the reply filed on December 6, 2004 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 60. This feature is not understood. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

3. The disclosure is objected to because of the following informalities: On page 10, line 6, slide plate 30 should be 26. Appropriate correction is required.

***Examiner Notes***

4. The examiner would like to note that the application does not make sense to the examiner. Please explain more clearly how there is conductance (flow) where there is no real flow anyway.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The fasteners are not disclosed in the drawings and are not understood in the specification. It is not understood how the fasteners are attached.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 8-9, and 41-43 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim US 3,401,915.

Kim discloses a housing having a flow channel and an annular surface surrounding the flow channel, a slide plate 17 located in the housing and movable transversely to an axis of the flow

Art Unit: 3751

channel between a closed position in which the slide plate blocks flow through the flow channel, and an opened position, in which the slide plate allows flow through the flow channel, and a seal ring 21 and 32 positioned between the annular surface of the housing and the slide plate; wherein at least one of the slide plate and the seal ring includes a plurality of passageways 34b for increasing conductance between the slide plate and the seal ring. The seal ring has a nipple 32 or end of 21 and an o-ring 32 is in the groove of the nipple.

9. Claims 1, 8-9, 11-13, 21, 41, and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Brida US 5,577,707.

Brida discloses a housing having a flow channel and an annular surface surrounding the flow channel, a slide plate 9 located in the housing and movable transversely to an axis of the flow channel between a closed position in which the slide plate blocks flow through the flow channel, and an opened position, in which the slide plate allows flow through the flow channel, and a seal ring 11 positioned between the annular surface of the housing and the slide plate; wherein at least one of the slide plate and the seal ring includes at least one passageway (Fig. 3, slide plate 9 has a passageway on the right side) for increasing conductance between the slide plate and the seal ring. The seal ring has a nipple 12 and has an annular groove with an o-ring 13. The slide plate is pivotally movable with a shaft having pivot arm. The valve assembly is for a process chamber in a vacuum valve.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3751

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brida US 5,577,707 in view of Maher, Jr. US 6,409,149.

Brida lacks a cam mechanism. Maher, Jr. discloses a cam mechanism. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the cam mechanism of Maher, Jr. to actuate the valve of Brida in order to provide better sealing of the plate to the seat.

12. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brida US 5,577,707.

Brida lacks a plurality of passageways. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a plurality of passageways as this would provide more flow and since it has been held that a mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8 (CA 7 1977)

#### ***Allowable Subject Matter***

13. Claims 2-7 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter:  
The primary reason for the allowance of the claims 2-7 and 10 is the positioning of the

Art Unit: 3751

passageway between the annular sealing portion and the second side of the seal ring in combination with the device as cited in claim 1.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prager, Knox, Sims, Clifford, Blenkush, Lowrey, and Clarkson disclose slide plates with sealing rings having a passageway. Kubo and Tisch disclose sealing rings with passageways.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Bastianelli whose telephone number is (571) 272-4921. The examiner can normally be reached on M-F (9:00-6:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

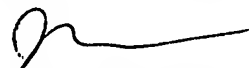
Art Unit: 3751

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JB

February 19, 2005



John Bastianelli  
Primary Examiner  
Art Unit 3751